Kistler-Morse®

Sonologic Products

case history

Market: Chemical Industry

CUSTOMER

Ohio Oxide's manufacturing plant in Lancaster, Ohio, with corporate offices located in Indianapolis, IN. The corporate office owns and operates four oxide manufacturing facilities.

PROBLEM

Ohio Oxide's Lancaster site processes and purifies lead oxide into lirtharge powder, a lead monoxide that is used to make glass. Typical end-users of the product include glass, light bulb, and TV picture tube manufacturers. Previously, the facility used to monitor levels of lead oxide in the tanks manually with a long pole, according to Frank Jones, plant manager in Lancaster. "The old system wasn't as accurate as what we have now," Jones says, "We used human eyes and a pole, so it depended mainly on which guy took the reading on a given day. And it was a dirty job, so we'd have to spend extra time to vacuum the mess from the oxide."

APPLICATION

Looking for a modern method to monitor lead levels in eleven carbon-steel storage tanks, the facility decided to use Kistler-Morse Sonologic ultrasonic level indicators. These devices determine bulk material levels by bouncing an acoustic signal off the lead. When the signal returns, the unit determines the time elapsed and uses the data to calculate the material's height. Ohio Oxide's tanks range in size from 5 to 12 feet in diameter, and stand 12 to 20 feet tall. The larger tanks hold as much as 135 tons, and each tank is cone-shaped on the the bottom. After looking at other vendors, Ohio Oxide chose Kistler-Morse for two reasons, Jones says, "They had the best local service for their units and their price was very competitive."

BENEFIT

Though the Kistler-Morse units provide for readout of material levels in the tanks, Ohio Oxide created a table that converts those level readings into an approximation of material weight in the tanks. Jones says the Kistler-Morse units are accurate within 3 tons on the 135-ton tanks. Jones says that monitoring accuracy is better than the old manual method, but the plant also has gained other benefits. "We've reduced labor costs from not having to clean up the mess that the powder used to make when we'd open the tanks to take a measurement," Jones says. "The ultrasonic units are less labor-intensive."

CONCLUSION

Another feature that Jones enjoys is that he can monitor lead levels in eleven tanks from just one location. "And it's easy to operate," he says, "There's just one little box with a few simple push buttons and I can see how much we have."

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